



DEPARTMENT OF ENGINEERING
LOS ANGELES, CALIFORNIA 90024

November 3, 1967

Mr. Larry Roberts
ARPA
ODS/ARPA
3E175 Pentagon
Washington, D.C.

Dear Larry:

As per our conversation yesterday I am sending you a summary of what took place at the recent Rand meeting. I look forward to seeing you during the week of November 12 for the FJCC. Let me reconfirm the meeting we have set up at Rand Corporation 9:00 AM - 2:00 PM, Monday, November 13th at the office of either Paul Baran or Barry Boehm. At that time we can discuss the items mentioned in the attachment.

See you soon.

Sincerely,

Len

LK:bsm

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ARPA Computer Division
Washington, D.C.
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SUMMARY OF AD HOC MEETING

Attendees: Paul Baran (Rand)
Barry Boehm (Rand)
Leonard Kleinrock (UCLA)
Elmer Shapiro (SRI)
Keith Uncapher (Rand; present only for the first hour)

On October 31st the above group met at the request of Elmer Shapiro in order to discuss certain aspects of the routing doctrine, as well as other matters of concern to the ARPA Computer Network.

After acquainting the Rand people with the matters discussed at the prior ARPA meetings, we came to the following tentative conclusions:

1. In view of the fact that there are so many unknowns and unsolved issues regarding the IMP function and specification, we feel that a closer examination of these and other problems is required before the specification can be written properly.
2. We propose that a working group of approximately four people devote some concentrated effort in the near future in defining the IMP precisely. This group would interact with the larger group from the earlier meetings from time to time. Tentatively we think that the core of this investigatory group would be Bhushan (MIT), Kleinrock (UCLA), Shapiro (SRI) and Westervelt (University of Michigan), along with a kibitzer's group, consisting of such people as Baran (Rand), Boehm (Rand), Culler (UCSB) and Roberts (ARPA).
3. This period of intensive investigation will take place before considering going out on bid or considering any contractor.
4. We strongly recommend procuring 3 IMPS initially and going through a debugging procedure for these 3 which would be located within close distance of each other, so that the cost of debugging and interaction would be small.
5. This effort we would like to begin shortly. We feel that the cost of this intensive committee would be relatively cheap, amounting to less than 2/3 man/year.
6. We feel that a simulation of the network is imperative and Culler and Kleinrock have agreed to undertake this task, using the Culler Computer system.
7. Attached is a timing diagram for the activities of bringing the net onto the air. This is only tentative.

TENTATIVE TIMING DIAGRAM

First Draft from Intensive Group to Roberts & ARPA Group
(Functional Description of IMP, Performance Specifications)

